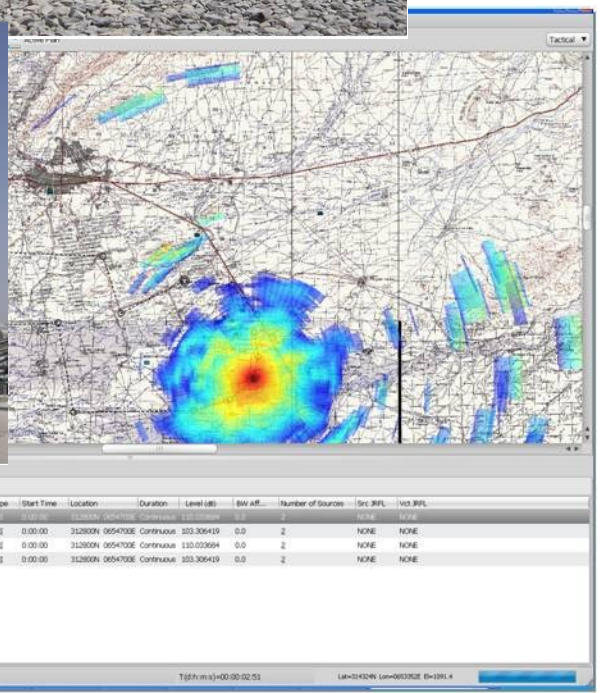
Defense Information Systems Agency
Department of Defense

"Operationalizing Spectrum Use in the Joint Environment"

Colonel John J. Hickey
Defense Spectrum Organization

Operational Lessons Learned



GOALS

Operational Effectiveness

Spectrum Access

Spectrum Efficiency

Situational Awareness

Challenges to EM Spectrum Control

Defense Information Systems Agency
Department of Defense

ADVERSARY FACTORS

- DE (EMP, HPM, laser)
- DRFM
- AESA
- MMW
- Advanced C2 nets
- Weaponized COTS
- Proliferation

Investment
$Billions to *collect* *Information:*

MANEUVER
EMS
SPACE

INDUSTRY

- IEEE STANDARDS
- SPEED
- WIRELESS
- SPREAD-SPECTRUM
- LOW COST

Investment
$Billions on *Capabilities* that *use* the information:

- LAND
- EW
- AIRCRAFT
- C4 NETS
- SHIPS
- GEN-5
- PGM
- AESA
- PNT

MCO

IW

Congested EMS Contested EMS

J2 J3 J6

We *assume* full Spectrum

Electromagnetic Spectrum Control:

Freedom of Action Across ALL Domains

Tools and Data are important, but “people”